



IRRC-02-011

October 24, 2003

To: Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572
28 Davis Avenue
Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/631,840 07/31/03

Min Li et al.

IMPROVED CPP GMR READ HEAD

Grp. Art Unit: _____

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.


The following Patents and/or Publications are submitted to
comply with the duty of disclosure under CFR 1.97-1.99 and
37 CFR 1.56. Copies of each document is included herewith.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being
deposited with the United States Postal Service as first class
mail in an envelope addressed to: Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450, on October 27, 2003.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

 10/27/03

U.S. Patent 6,493,195 to Hayashi et al., "Magneto-resistance Element, with Lower Electrode Anti-Erosion/Flaking Layer," describes using Rh between pinned layers.

U.S. Patent 6,462,541 to Wang et al., "Uniform Sense Condition Magnetic Field Sensor Using Differential Magneto-resistnace," discloses Rh as an antiferromagnetic coupling layer.

U.S. Patent 6,456,469 to Gill, "Buffer Layer of a Spin Valve Structure," teaches that any suitable non-magnetic material can be used between the pinned layers, but that Ru is preferred.

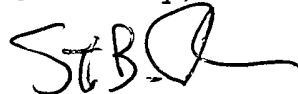
U.S. Patent 6,430,015 to Ju et al., "Method of Fabrication of Striped Magnetoresistive (SMR) and Dual Stripe Magnetoresistive (DSMR) Heads with Anti-Parallel Exchange Configuration," is a Headway patent which discloses that Rh, Cr, and Ir can be substituted for Ru

U.S. Patent 6,340,533 to Ueno et al., "Spin-Valve Magnetoresistance Sensor and Thin Film Magnetic Head," teaches using Cr, Rh, Ir, and alloys of Ru.

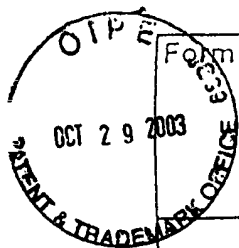
HTIRC-02-011

U.S. Patent 6,338,899 to Fukuzawa et al., "Magneto-resistance Effect Element, Magnetic Head, Magnetic Head Assembly, Magnetic Storage System," discloses that Ru, Cr, and Ir, or the like, can be used between the pinned layers.

Sincerely,

A handwritten signature in black ink, appearing to read 'StBQ' with a stylized flourish at the end.

Stephen B. Ackerman,
Reg. No. 37761



Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

(Use several sheets if necessary)

Docket Number (Optional)

HTIRC-02-011

Application Number

10/631,840

Applicant

Min Li et al.

Filing Date

07/31/03

Group Art Unit

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	AGING DATE IF APPROPRIATE
	6493195	12/10/02	Hayashi et al.	360	322	8/30/00
	6462541	10/8/02	Wang et al.	324	252	11/12/99
	6456469	9/24/02	Gill	360	324.11	6/5/00
	6430015	8/6/02	Ju et al.	360	327.32	2/2/01
	6340533	1/22/02	Ueno et al.	428	611	11/19/99
	6338899	1/15/02	Fukuzawa et al.	428	332	6/14/99

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.